

Creating a Workforce Fit to Deliver Major Projects:

An MPA seminar held at the Royal College of Pathologists, London on 15 November 2002

Participants

More than 50 participants attended the seminar and the following organizations were represented:

AEA Technology, Amey Plc, Anglo American plc, BAA Plc, Babbie Group, Balfour Beatty, Bechtel Ltd, Bovis Lend Lease Consulting, BT Plc, CSE International Ltd, EDS, Engineering & Technology Board, Glenn Irvine International, High-Point Rendel, Highways Agency, Kellogg Brown & Root, Lockheed Martin, Ministry of Defence, Mott MacDonald, Rail Industry Training Council, Rail Link Engineering, Railtrack Plc, Rolls-Royce Naval Marine, S A Murray Ltd, Sir Robert McAlpine, Strategic Rail Authority, UKAEA, UMIST, University of Salford, Washington Group, WSP Group Plc

The problems of the rail industry and its solution

Investment in railways is often thought to be a solution to its problems but it is only part of the solution. Rail is a people business and the delivery of projects depends on the people who do the job and manage the process. Hence the quality of people working on rail projects is crucial, whether they are specifiers, designers or deliverers.

The rail industry has a fragmented supply chain, which makes effective project management particularly difficult. Temporary staff are hired off the street and leave when the work is done. Why are we surprised that work needs redoing and the level of accidents increases? Getting these people to form a cohesive workforce and an effective supply chain is essential.

Recruiting people to railway projects also has its own problems. The railway works in a competitive environment for skilled workers, and there are plenty of other major construction projects going on, some on easier sites, with better working hours and less red tape. Further it is a sellers' market. *Getting the workforce right and the management right, as well as providing the investment, is the solution.*

Improving the delivery of major projects

Improving the delivery of major projects is not an option or a “nice to have”. It is a “must have”.

People are the core of any integrated project team. It follows therefore that assembling the “fittest” possible workforce and then bringing out the best in it is vital. The task is not easy. The workforce on major projects is itinerant and at contractor level often temporary. At a professional level, team members who are working on a finite project—working themselves out of a job, in effect—may need to be strengthened and motivated.

There is stiff competition for people with the relevant skills. But the character of the workforce is no excuse for failure to achieve world-class standards. No workforce will improve by itself; and therefore, skilling the workforce properly (covering everyone from the coalface to the management) must be tackled.

Improving people management

When the calibre of those who manage a project is high, the outcome is likely to be good.

One way to improve people management is to turn your organization charts upside down to show that leadership and management are there to provide the right environment to support the frontline operatives. Senior management must provide the right tools, information and logistical support at the right time. Then operatives can produce their best and projects of world-class standards can be achieved.

Empower every member of your workforce to reach his full potential. That applies as much to full-time members as it does to temporary or itinerant members.

Not understanding how teams perform well, decisions being made out of timescale or in a disorganized way can result in poorly performing teams.

Beware of appointing outstanding engineering professionals to project management roles, without formal training in the additional competencies required.

Improving productivity and quality

A real leader can make the people who work for him feel that they are needed and make a difference, and that they belong to an important community united by a common purpose.

People who have worked together and have the right and consistent training will be more productive.

Declining numbers of professional engineers

Engineering is an ageing profession. The numbers exiting (see figure) the profession are not matched by new recruits. Major engineering and construction projects need a continuing supply to deliver.

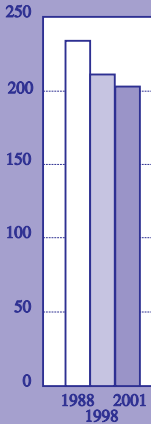
Public perceptions of engineering and the status of engineers in the UK is poor.

Yet, 80% of those with an engineering or technology degree walk straight into a job, compared with 65% for other disciplines; they can expect a starting salary 20% higher than other graduates, too.

The Engineering and Technology Board tasked to deal with this problem plans to

- target promotional messages at 7–16 year olds;
- to consider professional development, with a view to creating structural change in the way universities work;
- to consider the way the profession is structured; and
- to re-engage business.

Number of registered chartered, incorporated engineers and engineering technicians (1000s)



Coaching and preparing dedicated supply teams will increase productivity and quality. So can, in the construction industry, creating a manufacturing environment to build subassemblies offsite and then assemble subunits on site.

Feed the front line with the right decisions, resources, components and welfare facilities, to influence the way teams perform.

Focus on people competencies, the way they handle the process, and their ability to create innovative solutions. At the project management level, well-targeted training, especially in the soft skills, is often lacking.

Empowering the front line can make a step change in the attitude of the workforce, leading to higher productivity and quality.

Encourage itinerant workers to take responsibility for their own training, by refusing to employ unqualified workers on site.

Improving standard of health and safety at work

Health and safety is a basic requirement for effectiveness.

Both client and contractors have to aspire to provide better health and welfare facilities. (Note that it is all too easy to focus on safety at the expense of health.)

The more traditional aspects of health and safety can be structured around the core concerns of resourcing and training; site facilities and accommodation; and industrial relations.

To get the health and safety and the environment right, train everyone in “behaviour-based safety”, i.e. the understanding and acting on behaviour that causes or adds to the potential of accidents in the workplace.

Putting greater emphasis on occupational health will significantly improve safety results, by lowering the accident frequency rate.

Remember that if there is no feedback from managers, the workers’ interest in safety will lapse.

Get to grips with site facilities of all kinds and accommodation.

Remember that the employer’s attitude to health and safety can shape employee perceptions of his employer. A caring employer is likely to be a good employer.

In conclusion

This issue of creating a workforce fit to deliver major projects has immense ramifications, from activities to ensure a supply of good engineering graduates at one end of the spectrum (see box left), through to improving standards of health and safety provision, to foresight as to what the requirements will be in the future. These implications go beyond major projects and beyond the engineering and construction industry.

You cannot afford to do nothing. The cost of doing nothing is too high.

“You recruit the best people. You motivate and train everyone in their jobs.” *General Sir John Hackett*

MPA events are confidential, although this summary has been compiled so as not to breach confidentiality. Full proceedings and entry to MPA events are available only to members.